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INSTITUTIONALIZING OPERATIONAL INTELLIGENCE
IN THE JOINT ENVIRONMENT

by

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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Operations Department.

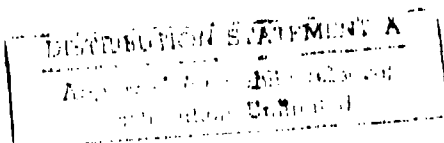
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Abstract of
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U.S. military successes in Panama and in the Persian Gulf have validated the concept of jointness legislated by the Goldwater-Nichols Act. Service and joint operational doctrine now express similar themes. Implicit in joint operational doctrine is the necessity to integrate operations and intelligence. However, the need for operational intelligence has not yet been fully embraced in the joint environment for three reasons. First, there is a lack of good joint intelligence doctrine. Second, the organization of U.S. military intelligence has historically evolved along service lines. This factor has also hindered the development of interoperable intelligence systems. Third, joint intelligence training is rare because of the lack of a doctrinal and organizational base. While these deficiencies did not materially affect the outcome of the Persian Gulf War, ongoing force reductions to the U.S. Armed Forces may mean that future joint commanders will be more dependent upon intelligence. To better support the joint commander in the future, operational intelligence needs to be institutionalized in the joint environment. This will require the development of joint intelligence doctrine followed by an organizational concept, a systems architecture, and joint intelligence training.

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INSTITUTIONALIZING OPERATIONAL INTELLIGENCE

IN THE JOINT ENVIRONMENT

INTRODUCTION

Since its enactment in 1986, the Goldwater-Nichols Act fundamentally altered the U.S. Defense establishment's previous concepts for planning and conducting military operations. Despite initial controversy within the U.S. military, the outcome of operations in Panama in 1986 and more recently in the Persian Gulf seem to have validated the concept of jointness that the act sought to instill in the U.S. Armed Forces.

Since 1986, joint and service operational doctrine appear to have grown closer together. Whether this is a dividend of Goldwater-Nichols is not certain, but it is nevertheless a positive development. The Army's FM100-5 Operations, the Marine Corps' FMFM-1 Warfighting, the Air Force's AFM 1-1 Basic Aerospace Doctrine of the United States Air Force, and Joint Pub 1 Joint Warfare of the US Armed Forces all express similar themes. Each discuss general principles of war, warfighting philosophies and the value of doctrine, and all recognize three levels of war: strategic, operational and tactical.

Clearly, however, the focus of these documents is at the operational level of war. Discussion of operational art and the conduct of operations and campaigns are stressed throughout.

Joint Pub 1 emphasizes operations and campaigns in a joint environment as might be expected, but the service doctrines also imply or specifically discuss that operations will be conducted in the joint environment.

These doctrinal publications also stress either implicitly or explicitly the need for good intelligence. For example, to effectively use any principle of war, knowledge of the enemy is key. Principles such as determining the objective, deciding when to mass, and achieving surprise all require as much information as possible about the enemy's disposition, strength, and intentions. Joint Pub 1 specifically addresses that intelligence must integrate with operations to enable the joint commander to identify and to attack the enemy's center of gravity.¹

Despite its importance, the need for operational intelligence has not yet been fully embraced in the joint environment. There are three major reasons why this is the case. First, there is no solid joint intelligence doctrine that supports current joint operational doctrine. Next, the organization of U.S. military intelligence since the end of World War II has evolved primarily along service lines. As a result, collection and processing systems useful for the production of operational intelligence have been designed to support service operations. Consequently, interoperability between services often has been limited. Third, without joint doctrine and organization, no viable joint intelligence training has been possible.

Following the Persian Gulf War, intelligence doctrine,

organization, system interoperability, and training were all criticised. Whether these accusations were accurate or not, U.S. commanders and intelligence officers were fortunate that time allowed the U.S. the opportunity to build overwhelming combat power to crush Iraq. Real or perceived intelligence failures did not significantly alter the outcome of the war.

However, the ongoing reduction of the U.S. military may mean that future operations will be conducted with fewer forces. In some such scenarios, joint commanders will be more dependent upon a reliable intelligence apparatus to support operations. As noted by Sun Tzu, knowledge of the enemy is as important as knowledge of one's own forces. By providing the joint commander the information to know when and where to fight, intelligence acts as a force multiplier to allow commanders better economy of force.

But to become a force multiplier for the joint commander in the future, operational intelligence needs to be institutionalized within the joint environment. Developing joint intelligence doctrine that supports current operational thought is the first step. After doctrine, an effective organizational concept, a systems architecture, and joint intelligence training will then be required to complete the process.

JOINT INTELLIGENCE DOCTRINE

Current joint intelligence doctrine lags behind joint doctrinal emphasis of the operational level of war as expressed by Joint Pub 1 and by the Doctrine for Unified and Joint Operations (Test Pub, JCS Pub 3.0). It is the operational level of war where

the plan is formulated that will "provide the means by which tactical successes are exploited to achieve strategic objectives." This definition, which describes the operational level of war as the bridge between strategic and tactical levels of war, reinforces the idea that the operational effort is the primary focus of the joint commander.

Unfortunately, a brief look at intelligence definitions in Joint Pub 1-02 and Doctrine for Intelligence Support to Joint Operations (Test Pub, Joint Pub 2-0) identifies a disconnect between the concept of intelligence support implied by the definitions and the operational focus of Joint Pub 1. Strategic intelligence is defined as that intelligence necessary "for the formation of policy and military plans at national and international levels." This an apt description of what intelligence should do to support the strategic level of warfare. Tactical intelligence is first defined as "intelligence which is required for the planning and conduct of tactical operations." However, the definition goes on to note that tactical and strategic intelligence differ "primarily in level of application."

The later part of this definition implies that similar procedures and equipment are applicable to providing both strategic and tactical intelligence. This is a serious oversimplification, especially with regard to collection systems. While national systems can provide tactical intelligence, these systems are optimized to support the strategic intelligence

effort. But more importantly, it places no emphasis on operational intelligence which Joint Pub 1-02 defines as "intelligence required for planning and executing all types of operations."⁴ Such a definition is too broad to be of practical use in building an organizational concept to provide operational intelligence to the joint commander.

If the role of doctrine is to provide a "basis for harmonious actions and mutual understanding" intelligence terms must be more aligned with the meanings of their operational counterparts. Unfortunately, Joint Pub 2-0 appears to take a step away from such an alignment. First, it ties strategic and tactical intelligence with levels of command, and then notes that:

Ad hoc arrangements for tactical intelligence support have directly involved so-called "national" intelligence producers (like CIA, DIA, and NSA) and "skip echelon" support from Service intelligence organizations. In contrast to strategic and tactical intelligence, operational intelligence applies not to a particular level of command, but rather to the function of supporting operations at any level.⁵

Such wording does not reflect a coherent intelligence support concept for any level of war and does little to establish a sound definition base for doctrinal development. Fortunately, the U.S. Army argues that the definition of operational intelligence contained in Joint Pub 2-0 and 1-02 "is used at the expense of coherence and consistency with never doctrine" and recommends that operational intelligence should describe "the intelligence required to support campaigns and major operations."⁶ With this meaning, operational intelligence then becomes the bridge between strategic and tactical intelligence in the same manner as the

operational level of warfare is the bridge between strategy and tactics. From this definition a more meaningful doctrine and a better organizational concept can be developed.

ORGANIZATION

Prior to the Persian Gulf War, U.S. intelligence primarily consisted of a large, Washington bureaucracy and service intelligence organizations scattered around the world. The centerpiece of U.S. intelligence was a massive apparatus designed to support Washington civilian and military decision makers. This structure was the outgrowth of post-World War II attempts to correct strategic intelligence deficiencies prior to and during the war. Frustrated by a lack of cooperation between the Army and the Navy intelligence organizations during the war, many senior officials desired a centralized intelligence organization under civilian control.

The National Security Act of 1947 provided such an organization in the form of the Central Intelligence Agency (CIA), whose head would also coordinate all U.S. intelligence under the title of Director of Central Intelligence (DCI). A principal factor in the creation of this agency was the need to provide to the President and his advisors information necessary to support policy decisions related to national security. The provision of "intelligence relating to national security"¹⁰ or "national" intelligence was to be accomplished by the CIA. To provide such intelligence, the DCI has played a lead role in the development of overhead imaging and signals collection systems.¹¹ Because of

the Cold War, overhead systems were primarily designed to acquire information about the Soviet Union.

To satisfy the voracious information appetite of U.S. decision makers, U.S. intelligence evolved into a massive bureaucracy of civilian and military intelligence specialists who managed the overhead systems and processed and analyzed the information from the overhead collectors as well as from other sources. Department of Defense (DOD) Washington-based agencies, the National Security Agency (NSA) and the Defense Intelligence Agency (DIA) in particular, did provide intelligence to the Unified and Specified Commands, but the emphasis was on supporting the Washington-based military establishment while the CIA provided support to the President and the National Security Council.

At the opposite end of the spectrum, the military services focused on tactical intelligence. The services developed collection and processing systems and created doctrine and procedures to support service missions. Within the Unified Commands, service component intelligence agencies, such as the Navy's Fleet Intelligence Centers, provided support to their own operating forces. Interoperability was not necessarily a major consideration in service planning. Service component intelligence agencies in turn were connected to a variety of other service intelligence organizations that gave each service a "stovepipe intelligence operation."

Data systems to aid analysis and to store and retrieve information were key to each service's organization, but because

of rapid changes in computer technology and different developmental stages of the various programs, information provided by these systems often could not be readily shared with other service tactical organizations. Even within services there was at times an inability to share information. As noted by the head of Air Force intelligence, Air Force intelligence units during Desert Shield used different processing systems that to some extent degraded interoperability and hampered coordination and the efficient passing of data.¹²

In addition to developing their own tactical intelligence systems, the services also planned to utilize national systems for tactical applications. The Tactical Exploitation of National Capabilities (TENCAP) program was designed to promulgate within the services the training and procedures necessary to utilize national collection assets. Field commanders were exposed to information previously unavailable. However, while such systems could support field commanders, often misunderstood were the limitations of space-based systems to support operations. Time constraints of collection, weather limitations, and particularly processing and distribution constraints limited the use of national assets.

Operational units could also make use of "national" support teams that were created by CIA, DIA, and NSA to provide Washington resources and information to the tactical commander. Typically, these teams, such as DIA's National Military Intelligence Support Teams (NMIST,) consisted of a two or three men with portable satellite communications equipment that could link a forward-

deployed commander with a support element located in Washington.

In between the national agencies and the service intelligence organizations was a small, middle ground of theater-level intelligence that was on the edge of change as the Persian Gulf War erupted. Some theater-level collection assets such as U-2/TR-1 aircraft provided information primarily in response to theater tasking. With the exception of the Intelligence Center Pacific (IPAC) serving the U.S. Commander in Chief Pacific (USCINCPAC), no large joint intelligence organization permanently existed in any theater. Support for joint task force exercises was typically provided by one or more service component intelligence agencies. Planning, however, was underway in the Atlantic and Pacific Commands to form Joint Intelligence Centers (JIC) from existing service component agencies.

Persian Gulf War

Consequently, at the outbreak of the Persian Gulf War, CINCCENT "did not have the resources, equipment, or organizational structure needed to deploy and support operations of the level and scope of Operation Desert Storm."¹³ While these resources could have been provided from other CINCs and from Washington-based agencies, U.S. Commander in Chief, Central Command (CINCCENT) chose instead to rely on a "federated" concept of intelligence support during the Persian Gulf War. This concept made CINCCENT's service components responsible for the maintenance of particular categories of orders of battle and other operational information. For example, U.S. Army Central Command was designated to provide

to all components Iraqi ground order of battle. While all of the components attempted to carry out these taskings, interoperability problems hampered the effective distribution of information.

Equally disturbing, this method placed the CINCCENT J-2 at a distinct disadvantage to manage the overall intelligence effort and to provide a coherent operational intelligence assessment to his Commander in Chief (CINC). Without a strong, centrally-managed joint intelligence organization, the Washington-based agencies were forced to play a critical role providing operational intelligence during the war, although initially they were "not prepared to cope with the volume of intelligence requirements to support the large scale of Operations Desert Storm and Desert Shield."¹¹ Various agencies "produced a very high level of duplicative, even contradictory, intelligence to support deploying and deployed forces."¹² Finally, a JIC was formed in Washington to "to provide a single, integrated DOD intelligence position to national decision makers and the theater commander."¹³

The Department of Defense noted other operational deficiencies as well in its Conduct of the Persian Gulf Conflict, Final Report to Congress. Of these, the inability to satisfy Battle Damage Assessment (BDA) requirements rapidly was perhaps the most serious. During Operation Desert Storm, combat operations outstripped the abilities of the BDA system.¹⁴ The criticality of this function readily became apparent to decision makers. As noted in the DOD Final Report to Congress, "Major CINCCENT operational decisions depended on BDA. These included

determining: the effectiveness of air operations; when to shift from the Strategic Air Campaign to preparation of the battlefield....and when and where to maneuver combat forces."''

Identified shortcomings to adequately perform BDA included no DOD-wide training or procedures and no existing automated system to sufficiently handle the large volumes of data that must be collated by analysts. However, others point to a different problem. The key problem may have been over-reliance on national systems and Washington-based agencies to provide BDA. While DIA and CIA could contribute to BDA, the CIA noted that BDA is the responsibility of the theater commander.''' A DOD official also emphasized that Washington intelligence agencies could not do the BDA job, explaining that they did not have all of the information available to them as was available to CINCCENT.'''

Given these shortfalls, it may seem surprising that the overall US intelligence effort was praised by CINCCENT. General Schwarzkopf stated that "The great military victory achieved in Desert Storm and the minimal losses sustained by the US and Coalition forces can be directly attributed to the excellent intelligence picture we had on the Iraqis."'' However, it must be remembered that the U.S. had nearly six months to establish an intelligence system before offensive operations began. Fortunately, during this time the U.S. was able to turn its large national and strategic intelligence apparatus to support the operational level of war. General Schwarzkopf was able to make his statement not because of any inherent efficiency and

operational focus within the intelligence community, but rather because of the sheer quantity of effort that was conducted over the span of nearly six months.

While the problems noted in the DOD Final Report to Congress may have contributed to intelligence shortcomings, they are perhaps symptomatic rather than causal. It appears that the greater problem was in the organizational concept for the provision of the BDA and for operational intelligence in general. A stronger joint intelligence organization in the theater appeared to be the critical deficiency. This does not necessarily imply an intelligence failure as the commander chose to have BDA conducted as it was. Regardless of who was responsible for inadequate BDA, "the lesson" appears to be the need for a wartime intelligence organizational concept that is recognized and understood by commanders and intelligence personnel prior to the onset of a crisis.

Reorganization Proposals

In the wake of the Persian Gulf War both the Secretary of Defense and the Congress have moved to alter the structure of U.S. military intelligence. Even prior to the deployment of forces for Desert Shield, Secretary of Defense Cheney initiated an internal reorganization of the Office the Secretary of Defense to facilitate the management of intelligence. Additionally, he directed the consolidation of a number of service intelligence functions within DIA, the consolidation of various service intelligence organizations into single intelligence commands for

each service, and the consolidation of theater intelligence efforts under a single joint intelligence center in some theaters. These actions were delayed by the Persian Gulf War but most have been or soon will be completed.

Fortunately, the result of most of DOD's actions should improve intelligence in general and may improve operational intelligence to the joint commander in some instances. The recently created JICs in the Atlantic and Pacific Commands now provide a single focus of intelligence support for the CINC, his components, and joint task force commanders. Management reorganization and consolidation within the service intelligence agencies should also facilitate management and coordination among the remaining service intelligence organizations and the DIA.

However, while the intent of the reorganization is to give "commanders a superior product" it is fundamentally based upon efforts to save dollars by eliminating duplication, rather than a comprehensive review of intelligence to provide better support to joint commanders. As noted, this may be the outcome in some instances but gaps remain. CINCCENT and U.S. Commander in Chief Southern Command do not have JICs and with force reductions will probably not get them. The previous ad hoc set-up during the Persian Gulf War does not seem to be the answer.

Given the diversity of threats and requirements across the theaters, it is unrealistic to conceive that all of the CINCs will need or even desire the same organizational support concept. The point, however, is to create in each theater an organization

permanently in place or an organizational concept for wartime support to satisfy each CINC's ability to effectively conduct the operational level of war. This will require careful thought and considerable effort on the part of the Defense intelligence establishment. However, the CINCs and joint commanders at all levels should be actively involved in the process to ensure that joint intelligence organizations do, in fact, meet their needs.

Congress has also demonstrated interest in intelligence reorganization. Both the Senate and House intelligence committees have taken a hard look at intelligence during the Persian Gulf War. As a result, they are ready to introduce legislation that would have sweeping impact upon the existing intelligence community if they are not satisfied with the impact of the DOD reorganization. This proposed legislation is cause for concern. The congressional reorganization would streamline the Washington intelligence agencies and make them more responsible to policy makers, but it largely ignores improvement of operational intelligence organization.

SYSTEMS ARCHITECTURE

Whatever the results of the DOD reorganization or the congressional proposals, they will determine the organizational framework of the structure that will provide operational intelligence to the joint commander. As that organizational concept emerges, a systems architecture will be necessary to ensure that adequate collection and processing systems are available to support joint commanders and that these systems are

interoperable with service tactical systems and national overhead systems.

Collection Systems

Current thinking on the part of some senior leaders is still focused on "linking tactical commanders with national-level intelligence assets."³ While this is feasible, and in some instances desirable, it operates on the theory that national systems can provide everything to everybody. This is not the case.

The availability of imaging systems during the Persian Gulf war provides a good example. Without question, the backbone of U.S. imagery collection rests upon overhead systems. However, these systems cannot image the number of targets required by multiple users to meet strategic, operational and tactical intelligence requirements at the same time in operations the size and scope of Desert Storm and Desert Shield. The reality is that while tactical commanders may have their requirements validated, they may not be high enough on the priority list to have them collected by national systems.⁴ Just as the DOD Final Report to Congress recognized that tactical commanders must have their own collection systems to supplement national sources, so must joint commanders to collect and process operational intelligence to support the operational effort.

Systems such as the U-2 and more recently the Joint Surveillance Target Attack Radar System (JSTARS) are examples of systems that can support the joint commander and supplement his

support from national systems. Similarly, the recently retired SR-71 was a resource that could have provided broad-area imagery to the joint commander had it been available. Such imagery was not provided by any of the other imaging systems and was identified as a deficiency in the DOD Final Report to Congress. This is not to argue for a specific system designed to operate for the joint commander. Rather it points to the need to incorporate the joint commander's collection requirements in an overall collection systems architecture and development effort.

Intelligence Processing Systems

Similarly there is a need to do the same with intelligence processing systems and the communications required to support them. Fortunately, there are some encouraging developments in this area. Joint programs, such as the Joint Services Imagery Processing System (JSIPS), and DOD standards prescribing a common transmission format for secondary imagery devices will improve interoperability when these systems are fielded. Unfortunately, several years may pass before they are fully operational. Data sharing is also improving and may not be a major problem by the end of the decade. DIA standards for automated system interoperability will ultimately allow world-wide data sharing across theaters. This development, under the heading of the Department of Defense Intelligence Information System (DODIIS), promises to provide excellent garrison support, but more emphasis must be placed on linking fixed-sites with forward deployed joint commanders. Prototype developments have been successful and

worldwide full operational capability may occur within a few years.

Communications will be the key to connecting deployed joint commanders with the tactical intelligence assets of their component forces and with national intelligence resources. To identify these communications requirements, congressional action dictated the establishment of the intelligence communications architecture (INCA) project office. As a primary function INCA is to improve the Defense intelligence establishment's "awareness of the communication infrastructure to ensure the timely provision of intelligence to operational commanders."

While there appear to be some positive signs for system development, it will be some years before they are fully operational. No system, however, will provide the total answer. As always, training remains the key ingredient to operational success.

TRAINING

As joint operational intelligence organizations emerge and as intelligence systems to support them are fielded, effective joint intelligence training will be critical to maximize the output from these organizations and systems. Training will be especially important to support CINCs and other joint commanders who do not have permanent joint intelligence organizations. Where joint commanders must rely on task organized JICs, effective training will greatly facilitate the transition to war by testing deployment plans, communications plans, and JIC procedures.

On a broader scale, training is needed to educate military and DOD civilian intelligence personnel so that they comprehend joint operational concepts and understand that intelligence needed at each level of warfare is different. As noted by one senior intelligence officer, "What the national community needs from a picture is different from what a guy flying a mission and going to a target needs."⁴ This does not imply a lack of operational orientation on the part of intelligence personnel. It simply means that intelligence personnel must understand that different levels of war require different types of intelligence.

However, training should also include the customer--the commander and the operations personnel who use the product. They will be better served if they understand the capabilities and limitations of intelligence. If they do, intelligence considerations can be better integrated into operational planning. In this way intelligence is more likely to serve the joint commander as the combat multiplier that it can be.

CONCLUSION

U.S. military and civilian officials who developed joint operational doctrine after the Goldwater-Nichols Act can justifiably feel proud of their work in the wake of American military accomplishments in Panama and in the Persian Gulf. These actions are a testament to the effectiveness of jointness. However, as U.S. force levels fall in the future, the world will not necessarily become a safer place. U.S. Armed Forces may be committed to a crisis in any theater on short notice. With fewer

forces available, risk factors increase. Even with the proven concept of joint operations, U.S. forces will need every advantage to assure success. Good intelligence can help.

But to be a successful force multiplier, the U.S. intelligence community must adapt itself to provide operational intelligence to the joint commander who will be called upon to handle the next crisis. This does not mean that national and strategic intelligence are not important. Far from it. It simply means that some intelligence resources should be focused to support a joint commander's requirements at the operational level of war.

To make this support possible, joint intelligence doctrine is needed to provide the framework from which an organizational concept can be developed. After organization, a collection and intelligence processing systems architecture can be formulated. But after the development of doctrine, organization, and architecture, training of intelligence personnel and commanders will be the key factor if operational intelligence is to be successfully institutionalized within the joint environment. When intelligence personnel who understand operations work for commanders who comprehend intelligence capabilities and limitations, operational intelligence can be a force multiplier in future joint operations.

NOTES

1. U.S. Joint Chiefs of Staff, Joint Warfare of the US Armed Forces, Joint Pub 1 (Washington: 1991), p. 34.

2. U.S. Joint Chiefs of Staff, Department of Defense Dictionary of Military and Associated Terms, Joint Pub 1-02 (Washington: U.S. Govt. Print. Off., 1989), p. 264.
3. ibid., p. 349.
4. ibid., p. 362.
5. ibid.
6. ibid., p. 263.
7. U.S. Marine Corps, Warfighting, FMFM 1 (Washington: 1989), p. 43.
8. U.S. Joint Chiefs of Staff, Doctrine for Intelligence Support to Joint Operations, Joint Pub 2-0 (Test Pub), (Washington: 1991), p. IV-2.
9. ibid., p. B-1.
10. U.S. Congress, House Permanent Select Committee on Intelligence, Compilation of Intelligence Laws and Related Laws and Executive Orders of Interest to the National Intelligence Community (Washington: U.S. Govt. Print. Off., 1985), p. 7.
11. Jeffrey Richelson, The U.S. Intelligence Community, (Cambridge, Ma.: Ballinger Publishing Company, 1989), p. 12.
12. James R. Clapper, "Desert War Was Crucible for Intelligence Systems," Signal, September 1991, p. 78.
13. U.S. Department of Defense, Conduct of the Persian Gulf War, Final Report to Congress (Washington: 1992), p. C-6.
14. ibid.
15. ibid., p. C-4.
16. ibid., p. C-5.
17. ibid., p. C-14.
18. ibid., pp. C-15-C-16.
19. Barbara Storr, "Measuring the Success of the Intelligence War," Jane's Defence Weekly, 20 April 1991, p. 636.
20. ibid.
21. DOD Final Report to Congress, p. C-1.

22. "Intelligence Establishment Faces Cuts, Consolidation," Signal, June 1991, p. 76.

23. Harry E. Soyster, "System Extends Real-Time Intelligence to Theater Level," Signal, September 1991, p. 72.

24. DOD Final Report to Congress, pp. C-10-C-11.

25. Harry C. Banford, "Meteoric Changes Forecast in Intelligence Processes," Signal, July 1991, p. 89.

26. Robert H. Williams, "U.S. Intelligence Responds to Changing '90s Missions," Signal, September 1991, p. 69.

BIBLIOGRAPHY

- Benford, Harry C. "Meteoric Changes Forecast in Intelligence Processes," Signal, July 1991, pp. 89-91.
- Clapper, James R. "Desert War Was Crucible for Intelligence Systems," Signal, September 1991, pp. 77-80.
- "Intelligence Establishment Faces Cuts, Consolidation," Signal, June 1991, p. 76.
- Richelson, Jeffrey. The U.S. Intelligence Community. Cambridge, Ma.: Ballinger Publishing Company, 1989.
- Soyster, Harry E. "System Extends Real-Time Intelligence to Theater Level," Signal, September 1991, pp. 70, 72.
- Starr, Barbara. "Measuring the Success of the Intelligence War," Jane's Defence Weekly, 20 April 1991, p. 636.
- Sun Tzu. The Art of War. Griffith, Samuel B., trans. London: Oxford University Press, 1963.
- U.S. Air Force. Basic Aerospace Doctrine of the United States Air Force, AFM 1-1, Volume I. Washington: 1991.
- U.S. Army. Operations, FM 100-5. Washington: 1986.
- U.S. Congress. House. Permanent Select Committee on Intelligence. Compilation of Intelligence Laws and Related Laws and Executive Orders of Interest to the National Intelligence Community. Washington: U.S. Govt. Print. Off., 1985.
- U.S. Congress. House. Permanent Select Committee on Intelligence. Draft National Security Act of 1992. 5 February 1992.
- U.S. Congress. Senate. Select committee on Intelligence. Draft Intelligence Reorganization Act of 1992. January 22, 1992.
- U.S. Department of Defense. Conduct of the Persian Gulf War, Interim Report to Congress. Washington: 1991.
- U.S. Department of Defense. Conduct of the Persian Gulf War, Final Report to Congress. Washington: 1992.
- U.S. Joint Chiefs of Staff. Joint Warfare of the US Armed Forces, Joint Pub 1. Washington: 1991.

- U.S. Joint Chiefs of Staff. Department of Defense Dictionary of Military and Associated Terms, Joint Pub 1-02. Washington: 1989.
- U.S. Joint Chiefs of Staff. Doctrine for Unified and Joint Operations, JCS Pub 3-0 (Test Pub). Washington: 1990.
- U.S. Joint Chiefs of Staff. Doctrine for Intelligence Support to Joint Operations, Joint Pub 2-0 (Test Pub). Washington: 1991.
- U.S. Marine Corps. Warfighting, FMFM 1. Washington: 1989.
- Williams, Robert H. "U.S. Intelligence Responds to Changing '90s Missions," Signal, September 1991, pp. 67-69.